

What is claimed is:

1. A communication control method for controlling a communication in a network composed so as to exchange data mutually between a plurality of communication apparatuses, comprising the steps of:

setting to send, by transmitting a first command from a first communication apparatus to a second communication apparatus in the network and instructing the second communication apparatus to send a notice that there is a specified state change to be executed in the second communication apparatus, to the first communication apparatus, a notice of the specified state change when the state change is generated in the second communication apparatus; and

giving, by broadcast communication, a notice that the first command can be newly accepted to each of the communication apparatuses in the network when the notice of the state change based on the setting is sent from the second communication apparatus to the first communication apparatus.

2. The communication control method according to claim 1, wherein the setting step to send a notice of the state change in the second communication apparatus includes the steps of:

gaining an area for storing a specified cue; and

storing the identification data of the first command issue side and data on the state change in the area, and

also when the state change indicated by the first command is different, the area is used in common.

3. The communication control method according to claim 1, wherein the broadcast communication indicating that the first command sent from the second communication apparatus can be accepted is carried out when a second command is transmitted from a third communication apparatus in the network in such a state that the setting based on the first command is performed in the second communication apparatus.

4. A communication system constituted by connecting a plurality of communication apparatuses with a network composed so as to exchange data mutually, wherein

a first communication apparatus connected to the network comprises:

command generating means for generating a first command to give a notice that there is a specified state change to be executed by control of another apparatus in the network;

first communication means for sending the first command generated by the command generating means to the network and for receiving a notice from a command receiver; and

first control means for judging the notice received by the first communication means, and

a second communication apparatus connected to the network comprises:

second communication means for carrying out a communication in another communication apparatus in the network; and

second control means for carrying out control to judge presence or absence of a specified state change based on the first command received by the second communication means and to set to give a notice when the state change is generated, and to detect the specified state change when the setting is performed, and to give a notice that the first command can be newly accepted by broadcast communication from the second communication means to each of the communication apparatuses in the network when a notice of the specified state change is given from the second communication means.

5. The communication system according to claim 4, wherein

the second communication apparatus includes storage means for storing a specified cue, and

the setting for causing the second control means to give the notice that the specified state change is generated is carried out by storing the identification data of the first command issue side and data on the state change in the storage means and the storage means is used in common also when the state change indicated by the first command is different.

6. The communication system according to claim 4,

wherein the broadcast communication indicating that the first command can be accepted from the second communication means is carried out when the second communication means receives a second command from a third communication apparatus in the network in such a state that the setting based on the first command is performed by the second control means.

7. A communication apparatus connected to a network formed by a specified transmission line and capable of exchanging data mutually with another communication apparatus in the network, comprising:

communication means for carrying out a communication with the another communication apparatus in the network; and

control means for carrying out control to judge presence or absence of a specified state change based on a first command received by the communication means and to set to give a notice when the state change is generated, and to detect the specified state change when the setting is performed, and to give a notice that the first command can be newly accepted by broadcast communication from the communication means to each of the communication apparatuses in the network when a notice of the specified state change is given from the communication means.

8. The communication apparatus according to claim 7, further comprising storage means for storing a specified cue, the setting for causing the control means to give the

notice that the specified state change is generated being carried out by storing identification data of the command issue side and data on the state change in the storage means, and the storage means being used in common also when the state change indicated by the first command is different.

9. The communication apparatus according to claim 7, wherein the broadcast communication indicating that the first command can be accepted from the communication means is carried out when the communication means receives a second command in such a state that the setting based on the first command is performed by the control means.

10. A communication apparatus connected to a network formed by a specified transmission line and capable of exchanging data mutually with another communication apparatus in the network, comprising:

communication means for carrying out a communication with another communication apparatus in the network; and

control means for generating a first command to give a notice that there is a specified state change to be executed by control of a specified communication apparatus in the network and for transmitting the first command from the communication means, and for generating a second command to give a notice that the first command can be accepted and for transmitting the second command from the communication means when the first

command is rejected.

11. A communication control method for controlling a communication in a network composed so as to exchange data mutually between a plurality of communication apparatuses, comprising the steps of:

transmitting a first command from a first communication apparatus to a second communication apparatus in the network and instructing the second communication apparatus to send a notice that there is a first state change to be executed by control of the second communication apparatus to the first communication apparatus;

reserving to give the notice of the first state change by the second communication apparatus when waiting for a notice of a second state change to be sent to another communication apparatus in the second communication apparatus; and

monitoring the reserved first state change after giving a notice based on generation of the second state change and giving a notice that a state change is generated in the first communication apparatus due to generation of the first state change.

12. The communication control method according to claim 11, wherein when the first command is received and the reservation is carried out in the second communication apparatus, a response indicating the fact is transmitted to the

first communication apparatus.

13. The communication control method according to claim 11, wherein when the first communication apparatus sends the first command and a response returned from the second communication apparatus then indicates that the notice of the state change is rejected, the first communication apparatus judges that the second communication apparatus is in sleep state.

a first communication apparatus connected to the network  
comprises:

first communication means for sending the command generated by the command generating means to the network and for receiving a notice from a command receiver; and

first control means for judging the notice received by  
the first communication means, and

a second communication apparatus connected to the network comprises:

second communication means for receiving the command

from the first communication apparatus and transmitting a notice to a sender of the command; and

second control means for setting to judge presence or absence of a specified state change based on the command received by the second communication means and to give a notice when the state change is generated, and for setting to reserve a notice instructed by the received command when the setting is carried out and the second communication means further receives the command, and to give a notice that the reserved state change is generated when a notice of the state change is given by the setting.

15. The communication system according to claim 14, wherein when the second communication means of the second communication apparatus receives the command from the first communication apparatus and the second control means carries out the reservation, the second communication means transmits a response indicative of the fact.

16. The communication system according to claim 14, wherein the first control means of the first communication apparatus judges that the second communication apparatus is in sleep state when the notice of the state change is rejected based on a response received after the first communication means sends the command.



17. A communication apparatus connected to a network formed by a specified transmission line and capable of exchanging data mutually with another communication apparatus in the network, comprising:

communication means for receiving a command from another communication apparatus in the network and transmitting a notice to a sender of the command; and

control means for setting to judge presence or absence of a specified state change based on the command received by the communication means and to give a notice when the state change is generated, and for setting to reserve a notice instructed by the received command when the setting is carried out and the communication means receives another command and to give a notice that the reserved state change is generated when the notice of the state change is given by the setting.

18. The communication apparatus according to claim 17, wherein when the communication means receives the command and the control means carries out the reservation, the communication means transmits a response indicative of the fact.

19. A communication apparatus connected to a network formed by a specified transmission line and capable of exchanging data mutually with another communication apparatus in the network, comprising:

command generating means for generating a command to

give a notice that there is a specified state change to be executed by control of another communication apparatus in the network;

communication means for transmitting the command generated by the command generating means to the network and for receiving a notice sent from a command receiver of the command; and

control means for distinguishing setting into a state in which the notice can be given and a state in which reservation is carried out until the notice can be given and judging based on a response received by the communication means.

20. The communication apparatus according to claim 19, wherein the control means judges that the command receiver is in sleep state when detecting that the notice of the state change is rejected based on the response received by the communication means.